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THE CONDOR

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Volume XII November-December, 1910 Number 6



COOPER ORNITHOLOGICAL CLUB

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Volume XII

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THE YELLOW PINES OF MESA DEL AGUA DE LA YEGUA

By FLORENCE MERRIAM BAILEY

WITH ONE PHOTO

NONE of the mesas we had seen so far between the Staked Plains and the Rocky Mountains had had any trees higher than the orchard-like junipers and nut pines; they had all belonged to the arid juniper zone, and all had the same set of birds, mammals and plants. We had been working in this juniper zone in New Mexico not only thru most of this field season but thru most of the previous season, with occasional dips down into the warmer zone of the mesquite country, so that our appetites for big trees and mountains had grown into a veritable hunger.

Now as we approacht Mesa del Agua de la Yegua, named apparently for some locally historic springs used for watering a band of mares, its western fringe of trees lookt surprizingly high to us, and the more we lookt, straining our eyes with eager hungry gaze, the higher they seemed, the longer stretcht the bare trunks below the bushy tops, and the more excited we got.

"Yellow pines!" was at last pronounced, conclusively. What a thrill it gave us and what a flood of rich associations the name brought us! Had we at last come to something higher than a juniper? Should we finally, to express our enthusiasm in working terms, get above the low trees of the arid Sonoran zone into the 'transition zone yellow pines with their old familiar birds and mammals? Haunted by visions of New Mexico's noble coniferous forests, it had seemed as if we would never get above the Upper Sonoran orchards. "Transition! Transition!" we repeated to ourselves, for the word was rich in memories of noble-boled, fragrant pine woods and sweet-voiced birds. It was too good to be true—I lookt at the trees fearful lest their imagined hight dwarf under my gaze. Still, in spite of my douts, we were working west toward the Rocky Mountains and this section of the plateau rose one thousand feet from the plains, so it might well reach into the yellow pines. The thought opened a beautiful vista—we were really approaching the mountains at last!

We followed up the juniper bottom parallel to the mesa and camped at the nearest point where we could find water, climbed a butte three or four hundred feet high to get the lay of the land—on top flushing a nighthawk from her eggs on the ground—picked out the best place from which to climb the mesa, and the next morning made an early start for it. At the foot of the mesa, near a Mexican adobe we encountered two small boys with skins so white that I spoke to them in English, thereby filling them with such amazement and terror that the only answers they could make were unintelligible sounds like the noises of frightened little animals.

Here, at the foot of the mesa, there was no longer any possible doubt about the pines; but looking up a distance of a thousand feet they were painfully suggestive of two-inch Noah's Ark trees. As we climbed, at 6500 feet by the barometer a halt was called, for besides the crowing of a rooster from the adobe below us, we heard an unfamiliar persistent sparrow song from the oak brush that made us slip from our saddles. The songster was soon found, sitting on the top of a low bush with his head thrown back while he sang, but tho' unafraid he was so full of song that he could not bear to be interrupted and flew ahead out of our way where he could keep on singing. When finally caught up with, however, he proved to be the Scott sparrow, greatly to our satisfaction, for it was a substantial extension of his range. This was still in the Upper Sonoran junipers, with even a touch of Lower Sonoran mesquite, and as we climbed up a warm southwest slope to the top most of the birds except the hummingbird that flashed before our delighted eyes still belonged to the juniper zone, among them the familiar ash-throated flycatcher, gray titmouse, canyon towhee, and rock wren. At 7000 feet, however, 400 feet below the top, to our great delight we at last reached the edge of the Transition zone; at last, after endless treeless plains and orchards of juniper and nut pine we stood and looked up the trunk of a yellow pine—a real tree!

Here, leaving the horses in a beautiful grassy park, unsaddled and picketed so they could graze while we were gone, we climbed on up to the crown of the mesa. The barometer now registered 7400 feet, and we were really in the pines, that is, in a strip of varying width along the western rim of the mesa. Bordering them was a fringe of oak brush and beyond that the plains stretched away as far—farther than the eye could reach—to Kansas, as was said grandly with a sweep of the hand toward the horizon. As we wandered about under the tall trees it seemed as if pines had never smelled so sweet, nor the wind in them ever blown so musically. It made us more than ever hungry for the mountains and made us rejoice with new realization that we were actually on the way to them at last.

Some of the juniper birds, such as bush-tits, vireos, and lark sparrows, were here, of course, with the mixture of country, but we were soon discovering bird after bird of the yellow pines, each discovery bringing a double thrill of delight and promise. Towhees with their handsome black and brown coats were singing all about in the oak brush just as we had seen and heard them a thousand times before—how good it seemed! A red-shafted flicker's familiar call reverberated thru the pines rousing echoes from many long closed chambers of memory; a bird flying away from the back of the tree trunk by which I was standing was recognized with a start as the slender-billed nuthatch—another bird of the forest—and—oh!—the busy pigmy nuthatch, one of the pleasantest of all little birds to come back to—what rare music his tinkling notes made in my ears. His cousin, *Sitta nelsoni*, is all business, but *pygmaea*—the plump, fluffy ball of feathers—seems to have a confidential way with his tree trunk and you can imagine him choosing out cozy corners among the branches in which to sleep.

In a pine top there was a long-crested jay with his handsome white-pointed

crest, his dark coat set off with turquoise blue. The first sight of *Cyanocitta*! How it brings back the richness of mountain life! *Aphelocoma*—the flat-headed jay—you are glad to see after an absence, but it is with a mild nut pine and juniper gladness; while at the first sight of the dark, crested figure of *Cyanocitta* in the yellow pines you seem to have reached a new altitude—to have reached the mountains. To be sure there are heights beyond, but this is a way station at which to take deep draughts from the full cup Nature is holding out to you—take deep breaths of the sweet piney air, quaff the cooling waters of the mountain streams, and look up at the beautiful yellow pines with their glistening spun glass needles as a foretaste of the firs and mountain tops beyond. You are in the mountains—the low country is left behind.



Fig. 56. THE YELLOW PINES

Courtesy of Forest Service

But what was that? Could it be? Yes! the glass revealed the pink glow on his breast and as he vaulted into the sky the form of the broad oval wings settled it—it was that handsome and most interesting bird, the Lewis woodpecker! Working and singing loudly among the tips of the pine branches were some warblers that to our delight proved to be the charming little gray and yellow Grace warblers.

A flash of red led us thru the pines till we came to a beautiful clear pool. Was this the Agua from which the Yegua had come to drink, so giving the Mesa its name? If so, the mares had had a beautiful woodland spring. The red flash here materialized into a hepatic tanager—how I hugged myself—preening its feathers for a bath in the pool. While we sat in sight of the water so many birds came

to drink that we concluded that it was the fountain for all the woodland folk. And in their number we included a beautiful deer whose fresh track we found not far away. On the floor of the woods an occasional red cactus, a blue tradescantia, or a single pink phlox made a bright spot of color.

When we were thinking that we had this most remote mesa top with its wild-wood friends all to ourselves we were surprized by a fresh horse track, a shod track; and then something white thru the trees made us raise the field glass—a white rooster on the fence of an adobe! Of course, we might have expected it, for like all the rest of the country the mesa had been sheept. Even now, once disillusioned, we caught the suggestion of sheep bells in the air. On the way down, too, we found old sheep camps and a salt log. It brought the same surprize we felt everywhere in New Mexico, for while to us the country was new, in very fact this land of *poco tiempo* is an old, old land. But after all, what did it matter to us, for on the Mesa del Agua de la Yegua we had come back to the yellow pines!

NOTES FROM LOS CORONADOS ISLANDS

By ALFRED B. HOWELL

WITH TWO PHOTOS

WITH the exception of four days, I was at Los Coronados Islands, Baja California, Mexico, from May 22 until July 15 of this year, and during this time I made a special study of the Xantus Murrelet (*Brachyramphus hypoleucus*), which species is found upon these islands breeding in limited numbers. Altho in former years they were known to breed on Santa Barbara Island, Los Coronados is now believed to be the northernmost place where they make their home. Surprisingly little is really known regarding the habits of this species, and it is not known with any degree of certainty just how far south their range extends.

From my observations, it seems to be beyond dout that these birds nest twice during the year, once towards the last of March, as has been proved time and again, and once more during the middle of June; for I found fully as many of their eggs at this latter date as did Mr. P. I. Osburn earlier in the season. Mr. Osburn has done considerable collecting here within the last few years, and spent four days with me during June. I have even taken half-incubated eggs from under the sitting bird as late as July 11, and it seems hardly likely that one nesting could straggle along continuously from March until July. And besides, no ornithologist has ever taken eggs of this species in May, as far as I can find out, and there are plenty of them who have visited the islands in that month in order to collect eggs of the other kinds of birds that are found nesting here.

A point that has puzzled me is the question as to what becomes of the young murrelets after they are hatcht. I greatly dislike the practice of advancing theories in order to try and prove scientific problems, but nevertheless I am now tempted to try and reach some conclusion by the process of elimination. The nests which I kept under careful observation numbered five. When discovered, the contents of these nests were in every stage of progress from eggs half-incubated, to young that were barely dry. In every case did I find the nests deserted when the latter were at the uniform age of four days. The obvious explanation to this would

be that when the nest has once been disturbed, the murrelets remove their young to a place of safety as soon as they gain a little strength; but this does not explain away the fact that I failed to discover any new nests that contained young beyond this age, which seems strange, as I made an especially diligent search for them.

I know that at least one observer has seen murrelets that were practically full grown, but still unable to fly, swimming about in the ocean with their parents at some distance from land, but could it be possible that the old birds would remove their little ones to the water when they are several days old, as is the case with wood ducks for instance? It appears to me that it would be impossible for murrelets of this tender age to survive the occasional heavy seas if this were the case, and yet this seems to be the only possible explanation.

The old birds not engaged in incubation spend the entire day at sea and are not to be seen near the islands. These return after dark, when their mates leave

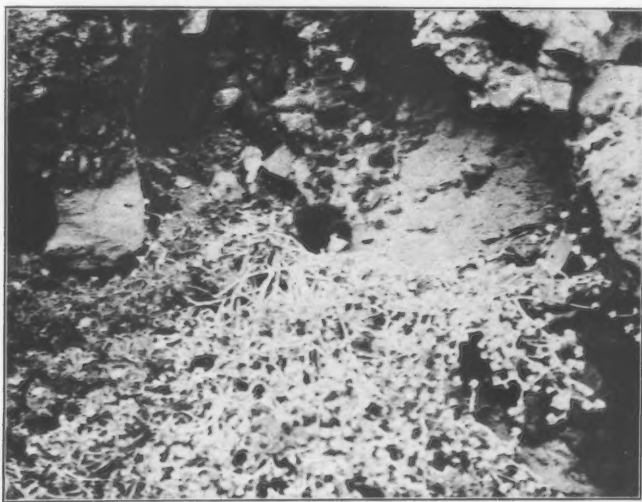


Fig. 57. YOUNG XANTUS MURRELET BELOW NESTING BURROW

for the feeding grounds, and in their turns, reseek the burrows just before the first gray lights of morning. From the contents of their stomachs, it is evident that they feed upon all kinds of small sea life, including crustaceans, and Mr. Osburn has found some of them to contain a certain green sea-weed, for which, as none of it is found floating at the surface, they must dive; practically all of their food is obtained in this manner anyway.

Their notes, consisting of a sharp twittering, are to be heard most frequently after midnight, when apparently they begin making their way into the shallow water very near the island, preparatory to the general movement at dawn. When feeding they are usually found in lone pairs at this time of year, altho I have occasionally seen six or eight individuals in one flock, where perhaps there was an especially abundant supply of food. It is odd, too, that thruout the nesting season while one of a pair is always incubating, just two birds are feeding together, but perhaps the lonely males are fond of a little flirting on the side. One finds that the birds

occupying the burrows during the day are about equally divided between males and females.

Murrelets are also attracted by light, as is the case with so many of the nocturnal sea-birds, and I have had them enter my tent thru the front flap and under the sides at night when my lantern was lighted.

The eggs of this species are laid upon the bare ground at the end of a burrow under a rock or in a natural cranny, and show an almost limitless capacity for variation. Even in the same nest I have found one egg that was clear sky-blue with very faint markings, while the other was nearly black. In fact one rarely sees a set in which the eggs are perfectly uniform both as to color and size. But the variation in size is more pronounced in the length than in the width of eggs of a set. The interval between the depositing of eggs was forty-eight hours in the case of two nests noted. With the assistance of Mr. Osburn and several others, I am able to give the average measurements of eighty-five eggs of *B. hypoleucus* as 2.13×1.41 inches. They vary from 1.97 to 2.25 in length, and from 1.32 to 1.48 in width. Sets of one egg are as often found as those of two. Their nests are at all times difficult to locate and require a vast amount of climbing and patient search.

I think it very probable that an occasional pair of Black-vented Shearwaters (*Puffinus opisthomelas*) breed upon these islands, for there were six birds of this species constantly to be seen in the vicinity of the South island; and on June 2, just at daylight, as I was rowing to the North, I looked up in time to see one of these at about a hundred yards from a steep hill-side, far above the water and flying directly out to sea, but altho I hunted for hours, I was unable to locate the nest. At present, this species is not known to breed regularly farther north than San Martin Island, where in March, I saw them congregated by the thousand, at about four in the morning.

I shall omit any reference to the petrels in this article, as I have turned over all the information that I gathered concerning this group to Mr. Osburn, who is preparing a special paper on the subject.

On July 9, I saw a single Wandering Tattler (*Heteractitis incanous*) probably a non-breeding bird which had decided to spend the summer in the southland.

Two pairs of Duck Hawks (*Falco peregrinus anatum*) had their nests here, one pair on the North, and the other on the South island. They must do fearful damage among the murrelets and auklets, for I have frequently seen them catch and kill both species just for the fun of the thing; sometimes only knocking them over, and at others, carrying them for a few yards before dropping them into the waves. On several occasions I witnessed interesting exhibitions of their truly marvelous flying ability. The first and most notable time was when I was collecting on a very steep cliff at two hundred feet above the sea. It being a lucky day, I pulled a murrelet out of a cranny and releast it. As usual, it dropt like a shot strait down until, when it began to curve out over the water, it had attained an enormous velocity. When it had gotten about a hundred yards from the shore, a pair of Duck Hawks left a ledge below me and gave chase. The unfortunate murrelet had not gone a hundred yards farther before he was caught. I am afraid to venture a guess on the speed at which these hawks must have been traveling. When seizing a small pelagic bird, they always stop the wing-beats at the instant of contact and by an upward flirt of their tails, shoot strait up in the air for perhaps a distance of seventy-five feet. They are also responsible for the death of a good many petrels, as is shown by the debris below their ledges. A curious habit that these falcons have, is that of one snatching food from another by turning belly upwards and grabbing the morsel in its talons.

During my whole stay I saw but one covey of about twenty Valley Quail (*Lophortyx californicus vallicola*), on July 7. They were so far advanced in molt at this date that they were almost naked. According to some authorities these birds are very slightly different from those on the mainland, but I am afraid that they will never reach the rank of sub-species, for unless someone succeeds in killing the one black cat that is now on the island, they are destined to be speedily exterminated.

On May 26 I discovered a male Western Tanager (*Piranga ludoviciana*) perched upon a rock above the sea and occupied in gazing longingly at the water. This bird staid near camp for two days and then disappeared.

On June 11 I caught sight of two yellowthroats—most unusual birds to be

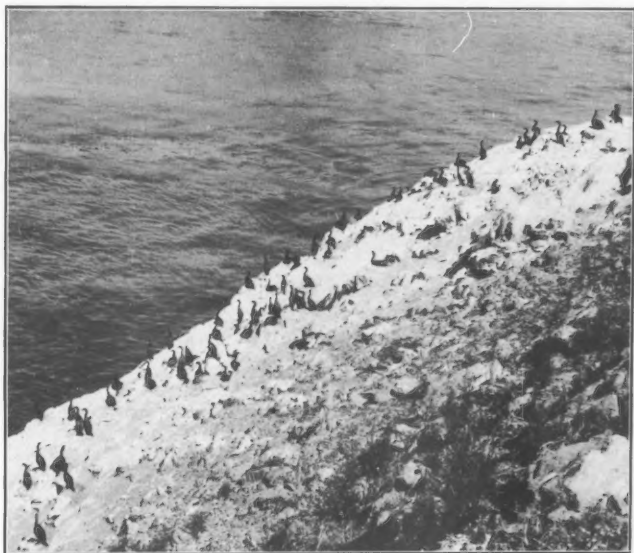


Fig. 58. COLONY OF BRANDT CORMORANTS WHERE SEVERAL BLACK PETRELS WERE ALSO FOUND NESTING

found on a dry island. I had no gun with me and could not again find them on succeeding days, so I have no idea as to their identity except that I do not think they were *Geothlypis trichas arizela*. To the best of my knowledge, this is the first record of either of the two last species having occurred on Los Coronados.

The study of our sea-birds in their nesting haunts contains elements of interest which no other form of field-work holds. Too little is known about the nidification and habits of most of our deep sea wanderers. To be among a colony of petrels after dark, or to sit on the rocks at dawn and listen to the love-talk of the pigmy murres as they return from a night's fishing, is alone worth the stale water, the hard work and the loneliness of a long stay of weeks on one of the desert islands of the Pacific.

NESTING NOTES ON THE AMERICAN EARED GREBE AND PIED-BILLED GREBE

By ROBERT B. ROCKWELL

WITH FIVE PHOTOS BY THE AUTHOR

IT WOULD be difficult indeed to name a family of common North American birds which presents more unusual peculiarities in habits and structure than does the grebe family. Queer in structure, almost helpless on land, never leaving the water except during migration, and biding a floating nest upon the water, where the eggs are hatcht largely by the aid of the sun's rays, these peculiar little spirits of the water present a very radical departure from what the word "bird" usually brings to mind. This is particularly true in a semi-arid country



Fig. 59. NEST AND EGGS OF AMERICAN EARED GREBE: A FLAT STRAGGLING AFFAIR OF FLIMSY CONSTRUCTION

such as Colorado, where suitable habitats are scarce and where the few families of similar birds are not found. It was therefore with a great deal of interest that, in company with Mr. L. J. Hersey, I studied the habits of these birds for three summers among the Barr Lakes near Denver.

The first birds made their appearance about the middle of April (April 14 is my earliest record) but did not become common until shortly after May 1. The earliest nests were noted May 10 (1907) and 11 (1908), nests of the American Eared (*Colymbus n. californicus*) and Pied-billed (*Podilymbus podiceps*) Grebes being equally abundant; but as the season advanced we found that the Pied-billed Grebes were nesting in far greater numbers than were their cousins.

The Eared Grebes' nests were easily distinguishable by the flimsy and apparently careless manner in which they were constructed, being very slight, strag-

gling platforms of large, rank, green dock stems, cat-tail stalks, rushes, weeds and grass, usually floating in comparatively open water, or in very sparse growths of cat-tails, with no apparent attempt at concealment. The nests were very flat, the nest cavity often being actually below water level, and the eggs in most cases being wet. How these eggs with damp shells retained enuf heat either from the parent or from the sun's rays to hatch them, is a problem which I have been unable to solve. And as a matter of fact quite a perceptible percent of old nests examined contained addled eggs. This was equally true of both species.

The Pied-bills' nests, on the other hand, were compactly-bilt structures of uniform size and shape, composed entirely of decaying vegetation of a uniform dead brown color, well bilt up above the surface of the water and fairly well cupt. They were nearly always bilt in a rather dense growth of cat-tails which afforded them reasonable concealment, altho a few exceptions were noted where nests had been bilt in exposed positions at the edge of open water with no concealment whatever.

Both species seemed to choose sites where the water was from two to three feet



Fig. 60. NEST OF AMERICAN EARED GREBE SHOWING CARELESS MANNER IN WHICH EGGS ARE COVERED BY PARENT BIRDS

deep, but this was probably due to the fact that suitable cover grew in this depth of water.

As has been said, the nests of the two birds were radically different in appearance, and this was further exemplified in the manner in which the eggs were covered during the absence of the parents. The Eared Grebes usually covered the eggs very carelessly with a thin layer of grass or rushes, and in many cases the eggs could easily be seen thru the covering. The Pied-bills, on the contrary, covered their eggs very carefully with a thick layer of moist decaying vegetation of the same appearance as the nest proper, spreading it evenly over the top of the nest to a depth of two inches or more; and the nest so covered presented a remarkable example of protective concealment, looking exactly like the water-soaked tops of dilapidated musk-rat houses. In fact, I smile to think of the number of these uninteresting looking mounds of filth, which I must have past unheedingly before I discovered the secret of their hidden treasures.

In the large number of nests examined we found from one to eight eggs, but I am inclined to believe that four is about the smallest number constituting a full set, while six (or possibly seven) is the maximum number laid by the Eared Grebes. The few sets of eight found were those of the Pied-bill, and one nest contained five eggs on the point of hatching and four chicks just out of the shell. (A set of this species in my collection collected near Chicago by Mr. Gerard Alan Abbott contains nine eggs.) The eggs of both species when first laid were a clear bluish white, the bluish tint being much more pronounced in the Eared Grebes' eggs, but the original color was promptly reduced to a dirty brown by contact with the decomposing nest material. Eggs of the Eared Grebes averaged a trifle longer than those of the Pied-bills, but the difference could not be detected without measuring.



Fig. 61. NEST OF PIED-BILLED GREBE SHOWING CAREFUL MANNER
IN WHICH EGGS ARE COVERED BY PARENT BIRDS

In several nests which were carefully watched, one egg was deposited each day, but as to whether incubation commenced when the first egg was laid, we were unable to decide. In one or more instances where the first set had been destroyed a second set was deposited in the same nest after a lapse of about a week, and a nest containing one fresh egg was found as late as July 6.

The great majority of nests were discovered during the heat of the day, when the eggs were covered and the parents were far out on the lake; but several times we surprised the parent birds near the nests and had excellent opportunities to study their actions. Some would swim rapidly away repeating the wheezing grebe call note until out of sight. Others would swim back and forth a few yards out of reach giving a rasping cry of protest; and a very few birds exhibited marked evidence of excitement, feigning a broken wing, uttering hoarse cries, and beating the water

with their wings to attract our attention away from the nests. These demonstrations were, however, confined entirely to the Pied-bills, the Eared Grebes exhibiting little or no interest in their nests.

By the third week in May the great majority of nests contained full complements of eggs, and one set of eggs was hatching on May 18. During the early part of June sets of eggs and broods of newly hatcht young were equally abundant, and by June 20 a large majority of the eggs had hatcht.

The freshly hatcht young were very pretty little fellows covered with black down, broadly streakt with whitish stripes running lengthwise of the head and body, giving them a somewhat sinuous appearance when in the water. They evidently take to the water as soon as hatcht, and are wonderfully active and quick.



Fig. 62. THE SAME NEST AS IN FIGURE 61 WITH COVERING REMOVED SHOWING EGGS

A baby grebe half the size of a chick can swim as fast as a man can wade thru the water comfortably, and the distance they can swim under water at this tender age is surprizing. They hide very effectively by diving and coming up to the surface under tiny bits of floating moss or rubbish, where they lie perfectly still with only the tips of their tiny bills exposed above the water. Their feet are abnormally large, which probably accounts for their remarkable swimming ability, and when quiet in the water the feet and head float on the surface, the rest of the body being submerged. The only note of the young grebe is very similar to the "cheep" of the domestic chick, first heard when the egg is pipt—very weak and tiny at first, but growing in strength and power as the bird becomes larger, until by the time the young are three-fourths grown the note is quite loud and clear.

The young birds have a peculiar habit of riding on the back of the parent birds. This is apparently done for the purpose of imaginary protection to the young, as we only observed it when broods of young were surprized close to the shore, and were seeking safety in the middle of the lakes. At such times the parent would swim close alongside the young bird and by raising the fore part of the body out of the water would submerge the posterior portion, upon which the youngsters would scramble with alacrity. The wings of the parent were then raised something after the fashion of a brooding hen, and often several babies would be cuddled comfortably beneath them. It was quite comical to see a well laden parent bird attempt to take on an additional chick, as this often precipitated the entire brood into the water, and this was always the signal for a wild scramble back on "board ship", during which rather strenuous performance the doting parent was the victim of an animated mauling. This additional weight on the parents' back



Fig. 63. NEST AND YOUNG OF PIED-BILLED GREBE

did not seem to affect their swimming powers, and the speed with which a mother grebe carrying a half a dozen babies could leave danger behind was surprising.

During the first week in July broods of young grebes were very much in evidence on all the lakes and ponds, trailing along thru the water after the parents in single file. The broods ranged in size from freshly hatcht babes half the size of a tiny chick to ungainly three-fourths grown youngsters, and many times mixt broods of two or three sizes were seen swimming about together.

Broods of young grebes continued to increase in abundance and were very conspicuous on all the lakes and ponds thruout the second and third weeks of July, after which time they gradually decreast in numbers; and the last birds noted were seen October 3, some little time after the bulk of the species had left for their winter homes.

On July 6, 1907, we had several distinct views of an albino Pied-billed Grebe,

which, so far as we could discern, was entirely snow white. The bird was evidently aware of its conspicuous coloration, and was very wild. Several determined efforts to secure the specimen were made, but the bird succeeded in keeping out of gun range.

THE BREWER SPARROW (*SPIZELLA BREWERI*) IN FRESNO COUNTY, CALIFORNIA

By JOHN G. TYLER

DURING the early part of May, 1906, the writer became aware of the presence of one or more small sparrows in a certain vineyard near Clovis, Fresno County, California. Their wiry, insect-like song was often heard, generally during the early forenoon, as the bird swayed in the breeze far out on a green tendril of some vine. Any attempt at a near approach would cause the singer to disappear and remain silent for a few minutes, when it would again appear at some distant part of the vineyard.

The area frequented by these birds was not large, covering only about eight acres, but different from other vineyards in the vicinity in having a decided slope to the south on one side, the soil being rather coarse and gravelly. Supported by stakes averaging about two feet in height, some of the vines had made a very rank growth and formed almost a small thicket in certain places, while in others where the growth was not so dense there were more open patches.

The birds were seen at frequent intervals after their first appearance, but as they seemed shy, and other matters claimed the writer's attention, their identity remained a matter of doubt for some time, until an almost accidental discovery confirmed a rather strong suspicion that had been formed soon after they were first noted.

Shortly before noon on June 4 while passing thru the vineyard a small bird was seen to fly apparently from a small vine and after skimming along above the ground shrike-fashion for a few feet, disappear in the screen of heavy foliage. Thinking this was only the nest of one of the numerous Western Lark Sparrows that were breeding commonly everywhere, I paused only to note the number of eggs or young but was somewhat surprised that a hurried search did not reveal any nest either on the ground beneath the vine or among the branches above. So a careful search was begun which resulted in the discovery of a very small and remarkably well-bilt nest placed directly against the stake and supported by three nearly vertical shoots just twenty inches above the ground. Resting in this nest were three green eggs similar in size and color to average specimens of the Western Chipping Sparrow, yet with a more coarse wreath of heavier markings of a decided reddish brown encircling the larger end. It required little more than a glance to convince the writer that it was not a nest of *Spizella passerina arizonæ* altho even had it afterwards proven to be such it would have been none the less a new record for me from Clovis.

The following day proved to be somewhat warm and cloudy and just at noon I cautiously approacht the vine containing the nest discovered the day before and very carefully parted the leaves. Sitting quietly on her nest, not two feet from my hand, was a small grayish-brown sparrow. The parallel black lines along her

upper parts left no doubt in my mind that I had found the nest of a Brewer Sparrow. So long as I remained motionless the sparrow staid on her nest, but at the first suggestion of a movement she darted away among the foliage, after which the nest with its contents was collected and the eggs were found to be heavily incubated.

Thinking that perhaps there might be a small colony of these sparrows, a more extensive search was made, as time permitted, resulting in the discovery on June 16 of a second nest in a location scarcely different from the first but containing two full fledged young birds. One of these was removed from the nest; it remained quiet while being held in my hand but the moment it was put back into the nest and I had started to leave, both of the little fellows jumped from the vine and hurriedly ran mouse-like to a place of concealment. During my stay at the nest both parent birds were heard chipping uneasily, but they seldom appeared and never came very near.

Since the season of 1906 each spring has found a few pairs of these little sparrows breeding in that or a nearby vineyard and one fact has impressed itself upon me more than any other. Scattered thruout this vineyard were a few vines that were either affected with some vine disease or for some other reason had become dwarfed in comparison to the others. The leaves on each vine had a yellowish cast and were small, while the whole vine lacked the thrifty appearance of its fellows. Every nest found was in such a vine and I soon came to distinguish them at quite a little distance and save much valuable time in searching for nests.

In order to prove the correctness of the theory that the nests were always placed in these small vines I have walked thru the vineyard during the early winter when the leaves had just fallen and in that way found several old nests, but not one was built in one of the larger vines.

During the past season (1910) not a sparrow could be found in this vineyard, and investigation revealed the fact that the dwarfed vines had all disappeared having, it seems, been treated in some manner that caused them to take on the bright, healthy look of the others. Over half a mile away, however, was another vineyard and while passing thru it one morning, I heard the unmistakable song of *Spizella breweri* and soon found quite a number of the "Brewer vines" as I called them. Later a nest was found that afterwards held three eggs.

All the nests found were much alike in situation and general appearance. A typical specimen is composed outwardly of dry grass stems, a few grass blades and roots, the inner cavity being made almost entirely of very small, dry brown rootlets with a few long horsehairs for lining. In one nest is a white horsehair, but in every other instance black ones were used. A single downy quail feather is used in the outer framework of one nest, but it does not in any way serve as a lining. A nest before me measures three inches outside diameter by one and seven-eighths inside. The inside depth is one and one-half inches while the outside would measure perhaps half an inch more. On the whole these nests are neat, compact structures and some of them are almost exact miniatures of nests of the California Jay.

Two, three or four eggs constitute the sets, and three is more often found than either of the other numbers. Besides the nest with two young birds, one was found on May 15, 1907, with one egg, and the following day another was added after which the bird began the duties of incubation and no more eggs were deposited. My earliest record is May 10 for four very slightly incubated eggs and the latest is June 9 for three eggs far advanced.

Of the food of these sparrows I have learned very little, as the birds were always shy and more often heard than seen. I have always had a suspicion that

large numbers of rose beetles were eaten; but without examining the stomach contents of a specimen I could never be positive on this point.

There is only one other place in this part of the State where I have ever found the Brewer Sparrow. Across the San Joaquin River in Madera County, just where the first scattering oaks begin in the foothills, are a number of low, hot, uninviting ridges, having an elevation of perhaps eight hundred feet. Devoid of vegetation except on the very summits where half a dozen large clumps of ragged sage bushes have found a foothold, these hills seemed too desolate to be a suitable home for any bird; yet on April 13 of the present year these bushes seemed alive with sparrows, if their songs were any indication. The number of birds that really constituted this colony was not easily determined as they were seldom induced to leave cover and their plumage seemed to blend with the soft gray-green of the surroundings.

Half a mile below, a creek wound lazily out of the hills to be lost in a series of mud holes a few miles out on the plains. Along this stream's course a number of large cottonwoods seemed to be tempting the ornithologist to enjoy their shade. Cool and inviting they extended farther and farther, at last seemingly merging into the blue haze of the mountains beyond. The sparrows were left to enjoy their torrid surroundings while the writer satisfied his desire for knowledge by hunting for nests of the California Jay in the bushy willows along Cottonwood Creek.

BIRD NOTES FROM SOUTHWESTERN MONTANA

By ARETAS A. SAUNDERS

WITH EIGHT PHOTOS BY THE AUTHOR

DURING the spring and summer of 1910 my work kept me in camp in various parts of Silver Bow, Jefferson, and Powell counties, Montana. The nesting season, in the mountains, hardly begins before the first of June, and, with the exception of two nests of the Clarke Nutcracker, I found no nests earlier than this.

The Nutcrackers (*Nucifraga columbiana*), however, were early enuf to suit anyone. With the first warm days in March, just after the Mountain Bluebirds had returned and when flocks of Shufeldt and Montana Juncos were beginning to throng the thickets, the Nutcrackers appeared to be choosing mates and hunting nesting sites. This bird is most abundant in this region at high elevations, in the white-bark pine forest, close to timberline, but it is not uncommon at much lower elevations, often as low as 5,000 feet, in scattered stands of Douglas fir. As these latter places are much more accessible at this season, it was here that I began my search for nests. For a time I found nothing, but finally on March 14, I noticed a large bulky nest, not high up in a fir on the rocky hillside where I had been looking, but barely six feet from the ground in a little, thick, bushy spruce, growing in the creek bottom. An examination showed this to be a new, practically finished but empty nest, and evidently that of a Nutcracker tho no birds were in sight.

On March 18 I visited the nest again. As soon as I touched the spruce a Nutcracker flew off, and I found that the first egg had been laid, evidently that morning. For the next three days I past the nest frequently and found the bird always sitting and a new egg each morning. In my experience most birds do not begin sit-

ting until the full complement of eggs is laid, but this does not appear to be the case with the Nutcracker. Perhaps a reason for this is the early nesting season, for at this time of year the temperature is often so low, both day and night, that there would seem to be danger that the eggs would freeze were they not constantly covered. On the morning of March 23 I found the nest empty and deserted, before I was sure that the complete set had been laid. I suspect that a pine squirrel took the eggs, for these animals were not uncommon in the vicinity. The second Nutcracker's nest was found on April 28, in a similar situation to the first but a few feet higher up. It contained two fully fledged young, which flew away as I climbed the tree.

On June 3 we moved camp to Pipestone Basin, Jefferson County. This basin is a large open grass area, about 5,700 feet in elevation and surrounded by mountains. Pipestone Creek winds thru the center, bordered by open grass marshes and fringes of willow bushes. Near the upper end of the basin the willows form dense impenetrable thickets. About the borders of the marsh, the higher and dryer parts



Fig. 64. NEST AND EGGS OF WILSON SNIBE

of the basin are clothed in luxuriant bunch grass and sagebrush, and slope gently up to meet the scattered firs that mark the edge of the mountain forest. At this season of the year bird life was very abundant in the basin. About our camp on the edge of the forest, Robins, Mountain Bluebirds, Red-shafted Flickers, Ruby-crowned Kinglets, Pink-sided Juncos, Western Tanagers and Hammond Flycatchers were common. From farther up the mountain slopes came songs of the Olive-backed and Audubon Hermit Thrushes. In the willow thickets were Willow Thrushes, Mountain Song, Lincoln and Slate-colored Fox Sparrows, Warbling Vireos, Yellow-throats, and Lutescent and Pileolated Warblers. In the open grass of the basin were Vesper and Savannah Sparrows, Brewer Blackbirds and Western Meadowlarks, while from a mass of boulders on the other side came the tinkling song of the Rock Wren.

My first nest was a common one, that of a Magpie (*Pica pica hudsonia*) placed in the top of a fir tree, a rather uncommon situation in this region, and containing four nearly grown young. On June 8 we experienced a late spring snowstorm, and when I climbed to this nest the next day, I found that it contained two dead birds and one live one. I have seen other cases where young Magpies have died in the nest apparently because of late spring snowstorms. Magpies in this region most commonly lay six or seven eggs. Only once have I seen a full set of as few as four. On the other hand I have never seen a brood of young Magpies out of the nest that numbered more than three. These observations seem to show that there is a high mortality among young Magpies possibly due to late spring snowstorms.

When climbing the tree to this nest, the parent birds became very much ex-

cited and often approacht very close to me, calling loudly and nervously pecking at branches of the tree, and breaking off and throwing down fir needles. On one occasion I took my camera up the tree and attempted to take pictures of the old birds, but because of the swaying of the tree and the difficulty of focusing, the results were not good. Later, under similar conditions I obtained some fairly successful pictures of Magpies.

On the evening after our arrival at the Pipestone camp, I heard, coming from the marshy portion of the basin, the wierd wing-music of a male Wilson Snipe (*Gallinago delicata*) and shortly afterward the call of the female bird. Every evening after that till we left the camp, the male snipe went thru his performance, circling high in the air and emitting at intervals the curious, whining crescendo notes, which are often answered from the marsh by a long call from the female. This call, which is common to both sexes, has been described as rail-like, but it struck me, while listening to it, that it was almost the exact counterpart of the call of the domestic guinea fowl.

On the evening of June 11, I went down toward the marsh to watch the performance from a nearer distance, and to attempt to locate the nest. From a previous experience with these birds I believed that the female at such times calls from the immediate vicinity of the nest, if not when actually sitting on it. I followed the direction of her voice out into the marsh and finally flusht her some forty or fifty feet ahead of me. It was getting too dark to hunt nests, so I markt the spot and went back to camp. The next morning I returned to the spot and soon flusht the male snipe some distance ahead of me. Supposing it was the female, I searcht for a nest where he rose but found nothing and was about to give it up when the female rose almost at my feet. Even then it took some search to see the nest and three eggs. As a nest of this species, found the previous year, had hatcht on June 12 I supposed that these eggs were nearly redy to hatch. When I returned with my camera, however, the bird would not sit closely and I got only a picture of the nest and eggs. Two days later I visited the nest again thinking the eggs might be hatcht, but insted I found them cold and deserted. Incubation was not so advanced as I had supposed, in fact had barely begun. My presence with the camera had evidently been too much for the bird at that early stage.

Except during the evenings, I found but little time to search this promising territory. One evening, while exploring the willow thicket at the npper end of the basin, I found a beautiful nest of the Pileolated Warbler (*Wilsonia pusilla pileolata*). The nest was placed on the ground in a mossy hollow under the roots of a clump of willows. It contained five eggs. The sitting bird could be plainly seen from one side and allowed me to approach to about three feet before she left.



Fig. 65. NEST AND EGGS OF PILEOLATED WARBLER

I made several attempts to take her picture by approaching slowly and setting up the camera in front of me. I once got so far as to see her image on the ground glass, but she left immediately afterward as I was removing the slide from the pack-adaptor. I then tried setting up the camera near the nest and leaving until she should return, but tho she returned soon, the presence of the camera made her nervous and she would leave long before I reach it. I finally gave it up and obtained only a picture of the nest and eggs.

About a hundred feet from this nest I flushed a Lincoln Sparrow (*Melospiza lincolni*) from its nest, situated at the base of a clump of willows and containing three eggs. At our next camp, about six miles south of Pipestone Basin, I found two more nests of this bird, one with four and one with five eggs. The nests are much like those of the Song Sparrow but a little smaller, and constructed almost entirely of grass with little or no hair in the lining. The way in which this bird flushes from her nest is very distinctive and quite unlike any other sparrow with which I am acquainted. She slips quietly from her nest and runs off thru the



Fig. 66. NEST AND EGGS OF LINCOLN SPARROW

grass without a note or a flutter of any sort, her movements more like those of a mouse than a bird. In fact two of the three birds I flushed I supposed at first were mice, and had I not looked at them a second time would have gone away without seeing their nests.

Up to the time the young birds left the nest I never heard an alarm note of any sort from the Lincoln Sparrows, but after that time, which took place about June 25, one could not enter the willow thickets without being scolded from one end to the other by these birds. We had a litter of young coyotes in camp, and

one Sunday they broke loose from their pen and led us quite a chase into a near-by willow swamp, before they were finally captured. As soon as they entered the swamp the Lincoln Sparrows, evidently recognizing a natural enemy, started scolding in a manner that I have seldom heard equalled in any bird. While helping to corner one of the coyotes, I noticed a young Lincoln Sparrow running ahead of me thru the grass and soon captured it. In general appearance and in the manner in which it ran thru the grass this bird resembled, until actually caught, a newly hatched game-bird rather than a young sparrow. It was unable to fly, but was very active at running and hiding in the tall grass. I took it to camp and posed it on the end of a tent peg for its picture, after which I released it again in the swamp.

About fifty feet away from the nest of the Pileolated Warbler, and close to the edge of the willow thicket, a pair of Pink-sided Juncos (*Junco mearnsi*) appeared, scolded me, flew about my head and finally followed me out of the swamp where I had searched in vain for nest or young. Later I found another spot where a pair of

Juncos evidently had a nest or young and where I past several evenings in succession. I searcht this spot for three evenings before I finally found a single young bird. This bird was well feathered but unable to fly and I almost stept on it before I found it. When I caught it and it called in distress the parents became fairly frantic and flew at my hed, and fluttered in front of me almost within reach. As it was late in the evening and the light very poor I did not get a successful picture of this bird.

Western Chipping Sparrows (*Spizella p. arizonæ*) were very abundant in this region and I found their nests most commonly of all. One of these nests, situated about two feet from the ground on a low limb of a lodgepole pine, was owned by one of the tamest birds I have met with. When I found the nest I almost toucht her before she would leave it, and the day I secured her picture I had to actually shake the limb before she would leave and allow me to see the contents of the nest. Then I found the reason why she sat so closely, for the nest then contained three newly-hatcht young and a single egg.

On June 17, we moved camp from Pipestone Basin to the vicinity of Homestake, about six miles south. The country which we crost, and in which our next camp was situated is very rough and rocky. Clusters of great granit boulders are scattered thru the hills and along the ridge tops, many of them standing up on end in a curious and fantastic manner. This country was once well timbered, but the greater part of the timber, except in the least accessible places, was cut off for the Butte market some twenty years ago. A poor scattered second growth of fir has sprung up, but a large amount of it was recently winter-killed.

There are a great many old fir stumps on this area, most of them containing old woodpecker holes. As we moved I walkt along behind the wagons, tapping at these old stumps and keeping my eye out for birds and nests. About the clusters of boulders I saw several pairs of Townsend Solitaires (*Myadestes townsendi*), a bird for whose nest I have sought many times in vain. One male Solitaire was in the midst of his flight song.

The flight-song of this species is something I have never seen mentioned by other writers, yet, to my mind it is the best flight-singer of any bird with which I am acquainted. The bird soars high above the rocky peaks and ridges till almost invisible; and the glorious loud and ringing song descends to the listener, each note as clear and pure and full of life and vigor as the mountain air itself. The bird seems tireless and the song continues for many minutes. Surely he can rival the Skylark. What a pity that this song is only rendered in the solitude of the mountains where few of us can ever know it! And yet half the charm of the song lies in its harmony with its surroundings. A Solitaire away from the wild mountain crags would hardly seem the same bird.



Fig. 67. ADULT FEMALE WESTERN CHIPPING SPARROW ON NEST

As we neared our new camp site, I heard notes from a pair of Mountain Chickadees (*Penthestes gambeli*) and stopt awhile to investigate. I soon found them, and in their vicinity a number of fir stumps, containing numerous holes, any one of which might contain the nest. I had not long to wait, for the birds hardly notist my presence but went to the nest and fed the young several times in the next few minutes.

While I was watching them, a Red-naped Sapsucker (*Sphyrapicus v. nuchalis*), the first I had seen in this region, flew to the same stump in which they had their nest, and moved out of sight on the side away from me. I heard him call, and a moment later two Sapsuckers appeared on the stump. One flew away and the other disappeared again. After waiting some time for his reappearance I walkt around the stump and on the other side found no bird, but a fresh hole. I rapt, and a frightened Sapsucker thrust up his hed and seeing me, drew it back quickly,

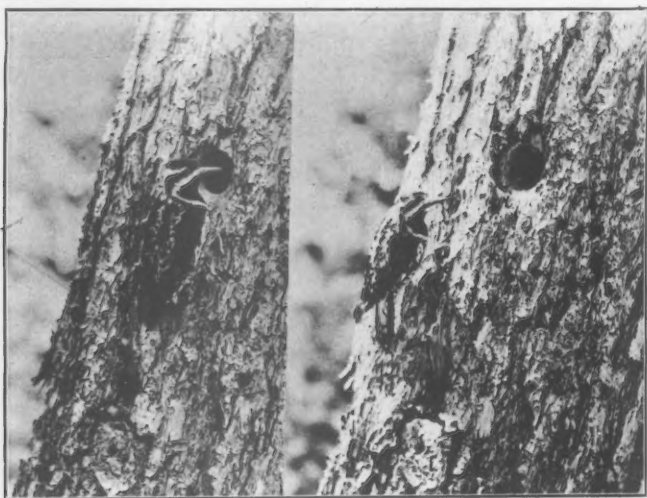


Fig. 68. RED-NAPED SAPSUCKERS AT NEST HOLE; TWO PICTURES: MALE AT LEFT, FEMALE AT RIGHT

and, rap loudly as I could, wouldn't show himself again. So here was a regular bird flat—Chickadees living upstairs with an entrance in front, at least on the side that faced the road, and Sapsuckers on the lower floor with an entrance at the back. It reminded me of an experience the previous year, when I had found Sapsuckers living in the same tree with a family of Pine Squirrels.

We hadn't been long at the new camp before I discovered that we were in the midst of a regular paradise for hole-nesting birds. The old fir stumps were very numerous and many of them occupied. Within a quarter of a mile of camp there were nesting, to my knowledge, four pairs of Mountain Chickadees, three of Red-shafted Flickers, three of Mountain Bluebirds, two of Rocky Mountain Nuthatches, and one of Red-naped Sapsuckers. The reason for the abundance of these birds is probably due partly to the number of nesting sites and partly to the scarcity of squirrels, animals that are undoubtedly the worst enemies of hole-nesting birds.

The scarcity of squirrels is in turn probably caused by the lack of trees large enuf to furnish the seed these animals depend upon for winter food supply.

Only a few of the nests near this camp were in good positions to obtain photographs, but these few were quite near camp so that little of my limited time was lost, going and coming. In back of the stump containing the bird-flat, was a large boulder which assisted in bringing the camera on a level with the Sapsucker's nest. This nest evidently contained eggs. The birds took turns at incubation and changed places frequently, but they were very wary of the camera and of me, so I gave it up until a Sunday, when there was plenty of time.

On Saturday evening I went to the nest and set up a dummy camera, made of my tripod and camera case, leaving it over night to get the birds "camera broke", as one of my friends exprest it. The next morning I set up the real camera, and with the canvas cover of my bed-roll constructed a blind in a corner between two convenient boulders, connecting the blind and camera by a thred. Waiting here was not at all tiresome, for the Chickadees up stairs were feeding their young frequently and furnisht considerable entertainment. The male Sapsucker soon appeared to change places with his mate. The blind and camera made little difference to him and I soon had my first picture. I took several pictures that morning with little trouble except that I had to leave the blind each time to change the film. The birds changed places regularly about once in half an hour. I had some difficulty in distinguishing the two birds, for the only mark of difference I could discern was a small patch of white on the chin and upper throat of the female, while the entire throat of the male was deep red.



Fig. 69. MOUNTAIN CHICKADEE WITH FOOD FOR YOUNG, SHOWING FOUR POSES

When leaving the nest to fly to a nearby tree, the birds often indulged in a peculiar flight entirely different from the usual one. In this flight the bird rises in the air and hovers and flutters in a curious way. There was something familiar about it, as tho I had watcht it many times before. Finally as I was pondering this, a Solitaire rose in flight-song on the other side of the gulch and then I realized what it was. This flight of the woodpecker was the same as a song-flight in every way. The arch of the shoulders, the trembling of the wings, and the manner of spreading the tail were exactly the same; and the familiarity was caused by this flight combined with the black and white markings which made the bird, from where I viewed it, resemble a male Bobolink.

On the opposite side of camp from this nest was a thick grove of aspen, and here one day I discovered a Sapsucker, probably one of the same pair, engaged in drinking sap from the aspens. Series of holes had been drilled into numbers of these aspens, usually near the top of the tree where the diameter was but an inch or two. The holes here were all fresh, but not far away I found more aspens, alders and willows that had been drilled, some of them apparently a good many years ago. I believe that these birds could hardly be considered very destructive in Montana, for the trees they attack are all small ones and of very little value.

On the side of the hill just west of camp I found another pair of Mountain Chickadees feeding young. The nest was as usual in a fir stump and the entrance was about eight feet up and facing south. At this nest I again made use of a large boulder which lay on the southeast side of the stump. The birds were very tame and the boulder was large enuf so that I sat on it beside the camera with no blind or attempt at concealment. There were several dead branches near the entrance to the nest, which the birds used as perches when going to feed the young. I attempted to get pictures by focusing the camera on portions of these branches; but the Chickadees were perverse little creatures, and chose almost any perch except the one on which the camera was focust.

After many attempts I finally got a saw and removed all the branches but one, after which I had more success. Both birds fed the young frequently and, after the first time or two, didn't appear to mind my presence in the least. So far as I could see the food was always insects, often a bill full of amber-colored gall-flies that were very abundant among the young firs, and occasionally a smooth, pale



Fig. 70. MALE MOUNTAIN BLUEBIRD
AT NEST ENTRANCE

green or light gray caterpillar. On the evening of June 26, as we were preparing to move camp the next day, I decided to open this nest to see the young and get pictures of them if possible. I sawed out and removed a piece of thick bark from in front of the nest. As soon as I toucht one of the young, however, the whole brood popt out, one after the other, so fast that I could hardly count them, tho I believed the number was five. Two of them were well able to fly and I could not catch them. The other three I caught and put back in the nest and closed the opening I had made. The sun was too low to take pictures then and I hoped these young might stay so that I could get the pictures early the next morning. I was disappointed, however, for tho I reacht the nest early, the young had left

and could not be found, tho the parents were in the neighborhood and calling excitedly.

In the rear of my tent at this camp was an old aspen stump in which a pair of Mountain Bluebirds (*Sialia currucoides*) were nest-bilding. They were evidently starting a second brood. for I remembered seeing Bluebirds with nesting material in the middle of April. A short time later I found another Bluebird's nest not far from camp in a fir stump. This nest was in an old flicker hole on the south side of the stump. The hole had never been completed and was so shallow that the yellow mouths of the six young could be seen from some distance away. My first attempt to get photographs of these birds, based on experience with eastern Bluebirds, failed entirely. The birds were very suspicious and wouldn't approach if I were within a hundred feet of the nest. I finally had to resort to a blind. I used my bed cover again and bilt the blind and set up the camera in the morning before breakfast, leaving it until the noon hour when the sun was right for pictures. I was fortunate in getting into the blind while both the parents were away, something I did not succeed in doing a second time. I found it entirely useless to wait for these suspicious birds if they had once seen me go into the blind. I ob-

tained two pictures on this first occasion, but never got another after that. The male gave me a good picture, but the female thrust her head into the shadow of the opening. Efforts to take pictures of the young were also useless, for up to the day they left the nest, June 26, they would become frightened as soon as handled and couldn't be induced to perch or pose in a satisfactory manner.

We moved camp again June 27, going south to Little Pipestone Creek. Here the country was less rocky in character and the elevation somewhat lower, 5,200 feet. There were many open grassy hills intersperst with clumps of tall firs and groves of aspen. I had little time now to hunt for nests and found nothing noteworthy until July 6. Then I saw a pair of Williamson Sapsuckers (*Sphyrapicus thyroideus*) about a group of old fir stumps, and soon discovered the nest in one of them. The nest was about eight feet up and contained young that were very noisy.

It seemed at first as tho there was no chance to photograph these birds; but I soon notist a dead limb on a nearby stump, to which I believed I could fasten the



Fig. 71. WILLIAMSON SAPSUCKERS AT NEST HOLE; TWO PICTURES:
MALE AT LEFT, FEMALE AT RIGHT

camera. When the opportunity came, I placed the camera on its tripod, straddled the tripod over the limb and lasht the whole thing firmly to limb and tree with a long rope. I experienced some difficulty climbing and focusing without disturbing some of the ropes, but I finally managed to do it. Even now the light was not very good, for there was less than an hour during the day when the nest hole was in sunlight and this light was not from in back of the camera but to one side so that it produced long shadows. The birds were not very shy and I believe I might have easily workt without a blind, but I had little time to waste in waiting, so bilt the blind and attacht a thred to the camera. Even now I had the trouble of coming out and climbing the tree to change the film after each picture. The young birds were well grown and the parents did not enter the nest hole but merely thrust their heds into the opening to feed the young.

Occasionally while the parents were away a young bird would come to the

opening and sit there until the parents' return, apparently enjoying his view of the outside world. That this was not always the same bird was shown by the fact that the head was occasionally black and white and occasionally brown, for the sexes are markedly different even at this stage. Altho the young were well grown at this time, July 8, they had not left the nest on July 13, when we moved away from the vicinity.

FROM FIELD AND STUDY

Unexpected Birds at Santa Barbara in the Summer of 1910.—1. *Oidemia deglandi*. A small flock, fifteen or twenty birds, I should say, past the entire summer here, where they were seen constantly by Mr. John H. Bowles and myself. It had not occurred to me that their presence could be worthy of record until I read in the new A. O. U. Check-List that non-breeding birds of this species had been found in summer "as far south as Monterey." I saw nothing of the species here in the summer of 1909.

2. *Marila affinis*. Two birds, a drake and a duck (or young male), were seen on the 6th, 15th and 16th of June, in a small fresh-water lake just outside of the city.

3. *Echmophorus occidentalis*. A single Western Grebe was seen off the beach on the following dates: June 11, 13, 14, 19, 20, 26, 28, July 5, and August 29 and 30.

4. *Limosa fedoa*. A Marbled Godwit appeared on the beach, where it permitted a close approach, June 4.

5. *Catoptrophorus semipalmatus inornatus*. A single Willet was found on the beach June 24, and July 8 and 24.—BRADFORD TORREY.

A Correction.—In THE CONDOR for November, 1909, I published an article on the nesting of the Broad-tailed Hummingbird (*Selasphorus platycercus*) in Gallatin County, Montana. Since then Prof. Wells W. Cooke has called my attention to the fact that the Broad-tailed Hummingbird is not ordinarily known to breed in Montana, while the Rufous Hummingbird (*Selasphorus rufus*) is known to breed there, tho not previously from that part of the State. Since the identification was by sight only, and that of a female bird, it is most probable that the bird which I saw was the Rufous Hummingbird. I was misled by the statement of the ranges of these species in the manuals, which led me to believe that the Rufous Hummingbird could occur only as a migrant in Montana, while the Broad-tailed, being found as far north as Idaho and Wyoming, might occur in southern Montana.—ARETAS A. SAUNDERS.

The California Towhee in Oregon.—The California Towhee (*Pipilo crissalis crissalis*) I have found to be fairly common at Kerby, Josephine County, Oregon. They are, however, so shy and keep so completely hidden in the thickest brush, except for occasional glimpses when flying from one thicket to another, that it is almost impossible to collect specimens. I have not succeeded in finding a nest, but have taken some skins which seem to differ appreciably from skins taken farther south.

I saw California Towhees first in 1901 on the East Fork of the Illinois River $3\frac{1}{2}$ miles north of the California line, and I have seen them along the river in suitable places for about 12 miles farther north. This area includes all of the level, open river valley in these parts, the high mountains or foothills coming right down to the river north and south of it. There seem to be suitable places along the West Fork of the river, but I have not seen any of the birds there. I have not seen them earlier than May or later than October.—CHARLES W. BOWLES.

Southern California Breeding Records of the Western Grasshopper Sparrow.—The Western Grasshopper Sparrow (*Ammodramus savannarum bimaculatus*) is recorded by H. W. Henshaw as breeding on the coast near Santa Barbara in 1875.

J. E. Law has noted the species all thru the summer months in the San Fernando Valley, Los Angeles County, and on one occasion took an adult female containing a fully formed egg.

J. S. Appleton has found this bird a fairly common resident of the Simi Valley, Ventura County. He took a set of 4 eggs advanced in incubation May 11, 1896, and a set of 5, incubated about one-half, May 15th of the same year. Both nests were on the ground in a barley field.

I found several pairs of Grasshopper Sparrows, all apparently breeding, in a barley field near Gardena, Los Angeles County, in May and June, 1910. On June 2, I found a nest containing 4 young just beginning to fly, and collected the female bird.—G. WILLETT.

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of Western Ornithology

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EDITORIAL NOTES AND NEWS

Don't neglect to vote on that simplified spelling proposition (see THE CONDOR, September, 1910, page 176.) The returns to date show very close results, so that a few more votes one way or the other will decide the matter. If you don't want to see simplified spelling in our magazine, say so. While the Editor himself, favors the use of it, he will not bear a personal grudge against anyone for differing from him. He fears that some are withholding an expression of opinion in the belief that the Editor will actively resent an adverse decision. He hopes that he deserves a higher rating than this. Remember that the vote must be concluded December 10; for the January issue has to be made up immediately following that date.

We urge the attention of CONDOR readers to the Business Manager's announcement on the inside back cover of this issue. Nothing is more certain than the absolute dependence of a successful enterprize like THE CONDOR upon the concentrated efforts of a very few persons in addition to the moral and practical support of a large number of others. Both are essential to the maintenance of our magazine on a high level of usefulness. Chambers and Law are men of affairs, with multitudinous private business interests; yet they are giving freely of the time necessary to secure the financial support of THE CONDOR. Let us all help them. Keep in mind the purposes of the Cooper Club:

For the observation and co-operative study of Birds, because of the resulting pleasure;
For the spread of interest in Bird Study, so that this pleasure may be shared by others;
For the publication of Ornithological Knowledge, as being a contribution to Science.

William Leon Dawson, author of *The Birds of Ohio* and (with Mr. Bowles) *The Birds of Washington*, and secretary of our sister organization, the Caurinus Club, is now in San Francisco. Mr. Dawson is planning to spend the next few weeks in this vicinity where he will be at home to all Cooper Club members at the Exeter Hotel, 154 Ellis Street. He will spend the holidays at Santa Barbara with his former associate, Mr. J. H. Bowles, and the remainder of the winter will be past in the neighborhood of Los Angeles.

Mr. W. W. Grant of New York City has devised a very convenient loose-leaf note-book for the use of beginning bird students. It is of pocket size and the leaves are of two sorts, ruled and headed with various captions. An outline drawing of a bird is shown, and a list of colors, numbered, is given, the intention being that the student can record in a few minutes the coloration of a bird by putting the color numbers on the drawing of the bird on his note page. Space is also indicated for various other features of the specimen observed, together with the conditions of observation.

The records obtained by this system require the least possible length of time in securing them, and at the same time secure the accuracy accompanying immediate inscription. Mr. Grant has arranged that the National Association of Audubon Societies will sell this book at cost, so that it will become available to amateur observers of birds everywhere. The idea is clearly of value and should result in much benefit to the cause.

Messrs. Witherby & Co., of London, announce an important work on Australian Birds which they are about to issue. A very large sum of money is being expended upon the preparation of this work, and every care is being exercised to produce results as perfect as possible in every direction and thoroly up to date.

PUBLICATIONS REVIEWED

DISTRIBUTION AND MIGRATION OF NORTH AMERICAN SHOREBIRDS, by WELLS W. COOKE (=U. S. Dept. Agriculture, Biological Survey, Bulletin No. 35, pp. 1 to 100, 4 pls.; issued October 6, 1910).

Professor Cooke and his co-workers of the Biological Survey have here brought together practically all the main facts known in regard to the subject exprest in the title. The economic importance of a compendium of this kind becomes apparent when one takes into account that increasingly large numbers of these valuable game birds are being killed annually, that unless mesures are taken to protect them, most of the larger species are likely to become extinct, and further that a knowledge of the summer and winter abodes of the several species and of the routes they take in migration is essential to effective legislation in their behalf.

The scientific value of the present paper cannot be over-emphasized. We have here collected an enormous aggregation of authenticated records, indicating with far greater precision than anything published before the breeding and winter habitats and the routes of migration of the 85 recognized species of Limicolae known to occur in North America. The author is able from this mass of data to present many generalizations of remarkable interest and wide significance.

The more important of these conclusions are that many waders pursue an annual course of migration in the path of an ellipse, returning north by an entirely different and remote route from that traversed on the southern journey; that some species lengthen their migratory travels so that they are carried 7000 or even 9000 miles from their breeding grounds, making their winter homes in extreme southern South America; that certain species make single flights without resting of at least 2000 miles.

Gunners are held responsible for a large part of the decrease in the numbers of our shorebirds; and yet other causes are operative, some of which it is probably not practicable to remove. The Eskimo Curlew altho formerly abundant in fall on the New England coast and in spring thru the Mississippi Valley is rapidly approaching extinction, if indeed any still exist. A simple explanation of this, offered, by Professor Cooke, is that during recent years the former winter home of the Eskimo Curlew, in Argentina, has been settled and cultivated, while its spring feeding grounds in Nebraska and South Dakota have been converted into farm land. This same cause is doubtless the chief basis for the change in numbers of many of our birds.

Of local interest to Californians is the probably unique migration route taken by those Mountain Plover which winter in the Sacramento Valley and southward into the San Diegoan district. "The farthest west and north that the species is known to breed is Montana; hence whether the California wintering birds come from Montana or from the more southern districts, they apparently form an exception to the general rule that North American birds do not winter farther west than they breed."

A bird new to California, here for the first time recorded, is the Upland Plover, a specimen of which was taken by Vernon Bailey at Tule Lake, August 8, 1896.—J. GRINNELL.

NOTES ON NEW ENGLAND BIRDS, By HENRY D. THOREAU; arranged and edited by FRANCIS H. ALLEN, with eleven illustrations from photographs of birds in nature and a map of Concord, Mass., showing localities mentioned by Thoreau in his JOURNAL. Houghton Mifflin Company, Boston, 1910, pp. ix + 452; price \$1.75 net.

"Scattered through the fourteen volumes of Thoreau's published JOURNAL are many interesting notes on the natural history of New England and a large proportion of these relate to birds. In the belief that readers and students would be glad to have these bird notes arranged systematically in a single volume, this book has been prepared. * * * *

It was, indeed, as a describer rather than as an observer that Thoreau excelled. He never acquired much skill in the diagnosis of birds seen in the field. He never became in any respect an expert ornithologist, and some of the reasons are not far to seek. He was too intent on becoming an expert analogist, for one thing. It better suited his genius to trace some analogy between the soaring hawk and his own thoughts than to make a scientific study of the bird. Moreover his field, including as it did all nature, was too wide to admit of specialization in a single branch."

These words from the editor's preface explain fully the nature and scope of this book.

These are not the complete records from the JOURNAL, but only "those seeming to have some intrinsic value, whether literary or scientific—using both terms in a liberal sense."

The notes were made between the years 1845 and 1860, principally between 1853 and the latter date, and cover some 115 species, besides general and miscellaneous notes (species unidentified).

It is an interesting contribution to the literary side of ornithology and should have some value to the student also.—H. T. CLIFTON.

A | MONOGRAPH | OF THE | PETRELS | (Orseder Tubinares) | By | FREDERICK DU CANE GODMAN | D. C. L. F. R. S. | President of the British Ornithologists' Union | With hand-coloured Plates | by J. G. Keulemans | Witherby & Co. | 326 High Holborn London | 1907-1910. Large 4to (10x13 inches), pp. i-lvi, 1-381, col. pl. 1-103. Price complete, bound, fifteen guineas.

Part V of this work reached us the last of May (1910), and brings to a wholly satisfactory conclusion the undertaking so elaborately begun four years ago. (See reviews in this magazine for 1908, p. 96, 1909, p. 72.) Part V comprises the remainder of the Tubinares not previously treated, namely, the albatrosses. Also: the full title page for the whole work (given above); the Preface; Introduction; chapter "On the Systematic Position of the Petrels", by W. P. Pyrcraft; Systematic List of Species; List of Plates; Classification; Index.—J. G.

LIFE OF | WILLIAM MACGILLIVRAY | [etc., 3 lines] | By WILLIAM MACGILLIVRAY, W. S. | Author of "Rob Lindsay and His School," etc. | With a Scientific Appreciation | By J. Arthur Thompson | [etc., 1 line] | with illustrations | [quotation] | London | John Murray, Albemarle Street, W. | 1910; 8vo., pp. i-xvi, 1-222, 12 plates. Price 10 | 6.

Those who find interest in historical biography will undoubtedly obtain much pleasure by reading the life of MacGillivray, the full title of which is given above. It was MacGillivray, a Scotchman, that Audubon secured to help him write the technical portions of his Ornithological Biography. The name is familiar to even the youngest students of American birds thru its being borne by at least two of our birds, a warbler and a sparrow. The book in hand tells among other things of the felicitous cooperation maintained between two men for nine years, the time occupied in

writing Audubon's Biography. MacGillivray subsequently put forth an important work on English birds, besides many less voluminous treatises on natural history topics. He is regarded as the most eminent British ornithologist of his day. The book under notice gives the reader a clear idea of the modes of thought of scientific men of the early part of the 19th century, strange to us of the materialistic present. They were poets rather more than critical students.—J. G.

New York State Education Department | — | New York State Museum | John M. Clarke, Director | Memoir 12 | BIRDS OF NEW YORK | by ELON HOWARD EATON | Part I | Introductory Chapters; Water Birds and Game Birds | [list of contents, 8 lines, double column] | Albany University of the State of New York | 1910; 4to., pp. 1-501, +152 inserted pages of tables following page 86, 42 colored pls., many halftone text illustrations.

This is an unusually elaborate treatise pertaining to the birds of a single state, especially so as being publicly printed. It is, moreover, of a high degree of merit in nearly every particular. It is attractive because of its large clear type, accurate information of many sorts, zonal treatment and maps, and profuse illustrations. Practically every species treated in this Part is represented in the colored plates from paintings by F. W. Howland. The classification and order are of the A. O. U. Check-List, except for one feature: the author has consistently disregarded the use of possessive in vernacular names. We congratulate the people of the State of New York that their ornithological exponent shows himself to be progressive even to this detail!

Eaton's *Birds of New York* will undoubtedly remain the standard authority in its field for very many years. It deserves a place, too, among the best ornithological works of general value.—J. G.

MINUTES OF COOPER CLUB MEETINGS

SOUTHERN DIVISION

SEPTEMBER.—The September meeting of the Southern Division of the Cooper Club was held on Thursday evening, September 29, 1910, at Room 1, City Hall, Los Angeles. The meeting was called to order by President Morcom, with the following members present: Mrs. J. E. Pleasants, Messrs. Leland, Willett, Howard, Robertson, Howell, Antonin Jay, Alphonse Jay, Tracy of the Northern Division, Shepardson, Zahn and Law. The minutes of the June meeting were read and approved, on motion by Mr. Willett, seconded by Mr. Robertson.

On motion by Mr. Robertson, seconded by Mr. Leland, and duly carried, the Secretary was instructed to cast the unanimous ballot of those present electing to active membership Mr. E. S. Spaulding, whose application was presented at the June meeting. The application of Mr. Daniel S. Halladay, 2770 W. 8th St., Los Angeles, was presented by Mr. W. Lee Chambers.

On motion by Mr. Willett, seconded by Mr. Leland, and duly carried, the action of the

Northern Division in electing to honorary membership Prof. F. E. L. Beal, was unanimously approved.

Motion by Mr. Robertson, seconded by Mr. Willett, was duly carried instructing the Secretary to make inquiry of the Northern Division concerning reported joining of the Pacific Association of Scientific Societies, same having been done without the knowledge or approval of the Southern Division, and to notify the Northern Division that the Southern Division does not propose to be bound without knowledge of what this may involve in a financial way.

The question of simplified spelling was discussed, and on motion of Mr. Robertson, seconded by Mr. Shepardson, and duly carried, the matter was put to ballot, which resulted in 7 ayes and 6 noes.

On motion by Mr. Robertson, seconded by Mr. Howard, the President was instructed to appoint a committee of three to act as a Museum Committee in designing cabinets, etc., for use in the new museum. The President appointed Messrs. Robertson, Willett and Law.

Mr. H. C. Tracy, who has spent a good deal of time in Syria and Asia Minor, gave a very interesting talk on the bird life of that region; after which, on motion by Mr. Willett, seconded by Mr. Leland, the Club unanimously gave Mr. Tracy a vote of thanks. Adjourned.

J. EUGENE LAW,
Secretary.

OCTOBER.—The October meeting of the Southern Division of the Cooper Club was held on Thursday evening, October 27, 1910, at Room 1, City Hall, Los Angeles. The meeting was called to order by President Morcom, with the following members present: Messrs. Swarth, Leland, Willett, Robertson, Howell, Owen, Lamb, Antonin Jay, Shepardson, Peyton, Zahn and Law, with Mr. Howard Peyton as visitor.

The minutes of the September meeting were read and approved, on motion by Mr. Robertson, seconded by Mr. Leland.

On motion by Mr. Willett, seconded by Mr. Peyton, and duly carried, the Secretary was instructed to cast the unanimous ballot of those present electing to active membership Mr. Daniel S. Halladay, whose application was presented at the September meeting.

Mr. A. B. Howell exhibited a series of twelve very beautiful sets of the Xantus Murrelet, and two specimens of Petrel, all collected on the Coronado Islands. The latter two specimens were notable because they were evidently not the Black Petrel. However, their identification has not yet been obtained.

Mr. Harry Swarth, who has been with the Museum of Vertebrate Zoology, Berkeley, California, for some years, spending a good deal of time in the field, gave a short talk on his this summer's experience in the northern part of Vancouver Island, and exhibited a series of photos from that region.

The balance of the evening was spent in interesting chat, which always comprises a very attractive part of the evening's entertainment. Adjourned.

J. EUGENE LAW,
Secretary.

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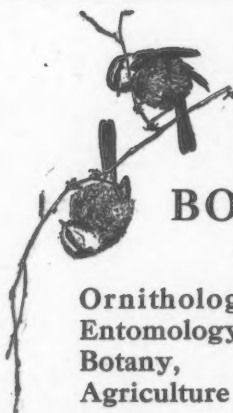
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